BA in Health and Human Physiology: Exercise Science Track

*Exercise Science* focuses on the body’s response to acute exercise, as well as the long-term benefits brought about by exercise. All organ systems are considered, with a strong emphasis on cardiorespiratory and musculoskeletal responses. *Exercise Science* graduates, especially those that have taken advantage of practicum and internship opportunities, are prepared to work in fitness/performance professions such as personal training, group fitness, strength and conditioning, and sport coaching. A degree in *Exercise Science* also offers excellent preparation for health profession programs such as physical therapy, occupational therapy, cardiac and pulmonary rehabilitation (and other clinical exercise fields), chiropractic, and medical school.

The exercise science track requires 48-50 s.h. of work for the major.

Students can declare this major at any time and they are advised in the department after they have earned 30 s.h.

**Science and Math Foundation**

Students must complete courses in each of the three science and math foundation areas. Note that the chemistry department lists prerequisites for its courses in the course descriptions. Students may want to consider enrolling in CHEM:1070 General Chemistry I as preparation for the chemistry courses in the Science and Math Foundation.

**Chemistry—one of these:**
- CHEM:1080 General Chemistry II 3 s.h.
- CHEM:1120 Principles of Chemistry II 4 s.h.

**Biology—one of these:**
- BIOL:1141 Introductory Animal Biology 4 s.h.
- BIOL:1140 Human Biology 4 s.h.
- BIOL:1411 Foundations of Biology 4 s.h.

**Mathematics or Statistics—one of these:**
- MATH:1020 Elementary Functions 4 s.h.
- MATH:1440 Mathematics for the Biological Sciences 4 s.h.
- MATH:1460 Calculus for the Biological Sciences 4 s.h.
- MATH:1380 Calculus and Matrix Algebra for Business 4 s.h.
- MATH:1850 Calculus I 4 s.h.
- PSQF:4143/STAT:4143 Introduction to Statistical Methods 3 s.h.
- STAT:1030 Statistics for Business 4 s.h.
- STAT:1020 Elementary Statistics and Inference 3 s.h.
- STAT:3510 Biostatistics 3 s.h.
Departmental Core Courses (12 s.h.)

One of these:
- HHP:1100 Human Anatomy 3 s.h.
- HHP:1150 Human Anatomy with Lab 4 s.h.

One of these:
- HHP:1300 Fundamentals of Human Physiology 3 s.h.
- HHP:1350 Fundamentals of Human Physiology with Lab 4 s.h.

Both of these:
- HHP:2200 Physical Activity and Health 3 s.h.
- HHP:2310 Nutrition and Health 3 s.h.

Track Core Courses: Exercise Science (20 s.h.)

- HHP:2350 Biomechanics of Sport and Physical Activity 3 s.h. (prerequisite HHP:1100)
- HHP:2500 Physical Activity Psychology 3 s.h.
- HHP:3400 Applied Exercise Physiology 3 s.h. (prerequisite HHP:1300)
- HHP:4200 Metabolic Exercise Testing and Prescription 4 s.h. (prerequisite HHP:2200, and HHP:3400 or HHP:3500)
- HHP:4210 Musculoskeletal Exercise Testing and Prescription 4 s.h. (prerequisite HHP:2200, and HHP:3400 or HHP:3500)
- HHP:4310 Sport and Exercise Nutrition 3 s.h. (prerequisite HHP:2200 and HHP:2310)

Exercise Science Major Electives (must complete 6 s.h.)

Students must complete at least 6 s.h. selected from courses numbered HHP:2000 or above

Possible electives to consider:

- HHP:2148 Personal Training 3 s.h. (Prerequisites: HHP:1300 or HHP:1350) and HHP:2200
- HHP:3050 Obesity: Causes, Consequences, Prevention and Treatment 3 s.h. (Prerequisites: HHP:2200 and HHP:2310)
- HHP:3300 Human Growth and Motor Development 3 s.h.
- HHP:3440 Physical Activity Interventions (Prerequisites: HHP:2200 and HHP:2310)
- HHP:4190 Scientific Basis Train Elite Performance 3 s.h. (Prerequisites: HHP:3500 or HHP:1300)
- HHP:4465 Environmental Exercise Physiology 3 s.h. (Prerequisites: HHP:3400 or HHP:3500 or HHP:3550)

For a complete list of courses please look at the HHP Section of the UI Catalog. [https://catalog.registrar.uiowa.edu/courses/hhp/](https://catalog.registrar.uiowa.edu/courses/hhp/)